

AMENDMENTS TO THE CLAIMS:

1. (Currently Amended) A surface acoustic wave device comprising:
a plurality of surface acoustic wave elements connected in parallel, wherein each of said surface acoustic wave elements comprises:
at least three interdigital transducer electrodes,
wherein said interdigital transducer electrodes are operable to generate a surface acoustic wave that travels in a propagating direction, and wherein each of said interdigital transducer electrodes is formed of a comb shaped electrode pair;
a first reflector electrode disposed at a first side of said interdigital transducer electrodes; and
a second reflector electrode disposed at a second side of said interdigital transducer electrodes,
wherein said first and second reflector electrodes are disposed in the propagating direction of the surface acoustic wave generated by said interdigital transducer electrodes;
one [[a]] ground connection electrode that connects together a first part of each comb shaped electrode pair forming said interdigital transducer electrodes; and
one [[a]] ground pad that is connected to said ground connection electrode.

2. (Original) The surface acoustic wave device according to claim 1, further comprising
at least one input pad and at least one output pad,
wherein a second part of each comb shaped electrode pair is connected with said at least

one input pad or said at least one output pad.

3. (Currently Amended) A surface acoustic wave device comprising:
 - a first surface acoustic wave element and a second surface acoustic wave element, wherein each of said first and second surface acoustic wave elements comprises:
 - at least three interdigital transducer electrodes, wherein each of said interdigital transducer electrodes is formed of a comb shaped electrode pair, and wherein said interdigital transducer electrodes are operable to generate a surface acoustic wave that travels in a propagation direction;
 - a first reflector electrode disposed at a first side of said interdigital transducer electrodes; and
 - a second reflector electrode disposed at a second side of said interdigital transducer electrodes,
 - wherein said first and second reflector electrodes are disposed in the propagating direction of the surface acoustic wave generated by said interdigital transducer electrodes;
 - at least one ground connection electrode, wherein, in at least one of said first and second surface acoustic wave elements, a first part of each comb shaped electrode pair forming said interdigital transducer electrodes is connected together in common by said at least one ground connection electrode;
one [[a]] ground pad that connects to said at least one ~~first~~ ground connection electrode;
 - a first element-to-element connection electrode, wherein a second part of a first comb

shaped electrode pair in each of said first and said second surface acoustic wave elements is connected together by said first element-to-element connection electrode;

a second element-to-element connection electrode, wherein a second part of a second comb shaped electrode pair in each of said first and said second surface acoustic wave elements is connected together by said second element-to-element connection electrode;[[,]] and

a third surface acoustic wave element and a fourth surface acoustic wave element,

wherein said first and second element-to-element electrodes serially connect said first and said second surface acoustic wave elements in two-stages,

wherein each of said third and said fourth surface acoustic wave elements comprises a second plurality of interdigital transducer electrodes,

wherein each of said second plurality of interdigital electrodes is formed of a comb shaped electrode pair,

wherein said first and said third surface acoustic wave elements are disposed in said propagating direction of said surface acoustic wave, and are connected in parallel, and

wherein said second and said fourth surface acoustic wave elements are disposed in the propagating direction of the surface acoustic wave, and are connected in parallel.

4. (Cancelled)

5. (Currently Amended) The surface acoustic wave device according to claim 3 [[4]], further comprising at least one input pad and at least one output pad,

wherein a second part of at least one comb shaped electrode pair is connected with said at

least one input pad or said at least one output pad.

6. (Original) The surface acoustic wave device of claim 5,
wherein, in at least one of said third and fourth surface acoustic wave elements, a first
part of each comb shaped electrode pair forming said interdigital transducer electrodes is
connected together in common by said ground connection electrode, and further comprising:
a third element-to-element connection electrode, wherein a second part of a first comb
shaped electrode pair in each of said third and said fourth surface acoustic wave elements is
connected together by said third element-to-element connection electrode;
a fourth element-to-element connection electrode, wherein a second part of a second
comb shaped electrode pair in each of said third and said fourth surface acoustic wave elements
is connected together by said fourth element-to-element connection electrode; and
wherein said third and fourth element-to-element electrodes serially connect said third
and said fourth surface acoustic wave elements in two-stages.

7. (Original) The surface acoustic wave device of claim 1, wherein
said plurality of surface acoustic wave elements share in common one of said first
reflector electrode and said second reflector electrode.

8. (Original) The surface acoustic wave device of claim 6, wherein
said first and said third surface acoustic wave elements share in common one of said first
reflector electrode and said second reflector electrodes.

9. (Original) The surface acoustic wave device of claim 1,
wherein at least one of said first and second reflector electrodes is formed of a plurality of
strip electrodes and a bus bar electrode, and

wherein different gaps are provided between different adjacent pairs of said strip line
electrodes.

10. (Original) The surface acoustic wave device of claim 3,
wherein at least one of said first and second reflector electrodes is formed of a plurality of
strip line electrodes and a bus bar electrode, and

wherein different gaps are provided between different adjacent pairs of said strip line
electrodes.

11. (Original) The surface acoustic wave device of claim 4,
wherein at least one of said first and second reflector electrodes is formed of a plurality of
strip line electrodes and a bus bar electrode, and

wherein different gaps are provided between different adjacent pairs of said strip line
electrodes.

12. (Original) The surface acoustic wave device of claim 9, wherein
said bus bar electrode comprises a first region and a second region, and
said gap between respective strip line electrodes is different in said first and said second

region.

13. (Original) The surface acoustic wave device of claim 10, wherein
said bus bar electrode comprises a first region and a second region, and
said gap between respective strip line electrodes is different in said first and said second
region.

14. (Original) The surface acoustic wave device of claim 11, wherein
said bus bar electrode comprises a first region and a second region, and
said gap between respective strip line electrodes is different in said first and said second
region.

15. (Original) The surface acoustic wave device of claim 9, wherein
said gap between respective strip line electrodes is different throughout an entire width of
said bus bar electrode.

16. (Original) The surface acoustic wave device of claim 10, wherein
said gap between respective strip line electrodes is different throughout an entire width of
said bus bar electrode.

17. (Original) The surface acoustic wave device of claim 11, wherein
said gap between respective strip line electrodes is different throughout an entire width of

said bus bar electrode.

18. (Original) The surface acoustic wave device of claim 1, wherein
at least one of said first and second reflector electrodes is formed of a plurality of strip
line electrodes and a bus bar electrode,
said bus bar electrode comprises a plurality of regions,
substantially identical gaps are formed between each adjacent pair of strip line electrodes,
and
lengths of the respective strip line electrodes are different in said plurality of regions.

19. (Original) The surface acoustic wave device of claim 3, wherein
at least one of said first and second reflector electrodes is formed of a plurality of strip
line electrodes and a bus bar electrode,
said bus bar electrode comprises a plurality of regions,
substantially identical gaps are formed between each adjacent pair of strip line electrodes,
and
lengths of the respective strip line electrodes are different in said plurality of regions.

20. (Original) The surface acoustic wave device of claim 4, wherein
at least one of said first and second reflector electrodes is formed of a plurality of strip
line electrodes and a bus bar electrode,
said bus bar electrode comprises a plurality of regions,

PRELIMINARY AMENDMENT
U.S. SERIAL NO. 10/812,026

substantially identical gaps are formed between each adjacent pair of strip line electrodes, and lengths of the respective strip line electrodes are different said plurality of regions.

21. (Original) The surface acoustic wave device one of claim 2, wherein said interdigital transducer electrodes are structured so that said at least one input pad and said at least one output pad operate in a balanced state.

22. (Original) The surface acoustic wave device of claim 5, wherein said interdigital transducer electrodes are structured so that said at least one input pad and said at least one output pad operate in a balanced state.

23. (Original) The surface acoustic wave device of claim 6, wherein said interdigital transducer electrodes are structured so that said at least one input pad and said at least one output pad operate in a balanced state.

24. (Original) The surface acoustic wave device of claim 1, wherein in a case where there are n pieces, or more, of said surface acoustic wave elements, wherein n = an integer of 2 or more, said interdigital transducer electrodes are structured so that each of said surface acoustic wave elements has an impedance of $(50 \times n) \Omega$.

25. (Original) The surface acoustic wave device of claim 3, wherein

in a case where there are n pieces, or more, of said surface acoustic wave elements, wherein n = an integer of 2 or more, said interdigital transducer electrodes are structured so that each of said surface acoustic wave elements has an impedance of $(50 \times n) \Omega$.

26. (Original) The surface acoustic wave device of claim 2, wherein at least two of said interdigital transducer electrodes are connected together in common with said at least one input pad or said at least one output pad.

27. (Original) The surface acoustic wave device of claim 5, wherein at least two of said interdigital transducer electrodes are connected together in common with said at least one input pad or said at least one output pad.

28. (Original) The surface acoustic wave device of claim 6, wherein at least two of said interdigital transducer electrodes are connected together in common with said at least one input pad or said at least one output pad.

29. (Original) The surface acoustic wave device of claim 3, wherein signals in said element-to-element connection electrodes are reverse-phased to each other.

30. (Original) The surface acoustic wave device of claim 3, further comprising an electrode for connecting said first element-to-element connection electrode with said second

element-to-element connection electrode.

31. (Original) The surface acoustic wave device of claim 2, wherein said interdigital transducer electrodes are structured so that impedance as viewed from said input pad or said output pad, is approximately 50Ω .

32. (Original) The surface acoustic wave device of claim 3, wherein said ground connection electrode which connects together in common said first part of the comb shaped electrode pair forming each of said interdigital transducer electrodes, and said ground pad, are disposed to be symmetrical to each other.

33. (Original) The surface acoustic wave device of claim 4, wherein said ground connection electrode which connects together in common said one part of the comb shaped electrode pair forming each of said interdigital transducer electrodes, and said ground pad, are disposed to be symmetrical to each other.

34. (Original) The surface acoustic wave device of claim 1, wherein said surface acoustic wave elements are formed on a piezoelectric substrate.

35. (Original) The surface acoustic wave device of claim 3, wherein said surface acoustic wave elements are formed on a piezoelectric substrate.

PRELIMINARY AMENDMENT
U.S. SERIAL NO. 10/812,026

36. (Original) The surface acoustic wave device of claim 6, wherein one of said first and said second element-to-element connection electrodes, and one of said third and said fourth element-to-element connection electrodes, oppose each other, and signals in said element-to-element connection electrodes that oppose each other have the same phase.

37. (Original) The surface acoustic wave device of claim 6, further comprising: a connection electrode which connects one of said first and said second element-to-element connection electrodes with one of said third and said fourth element-to-element connection electrodes.

38. (Original) The surface acoustic wave device of claim 6, further comprising: a connection electrode which connects together in common said first, second, third and fourth element-to-element connection electrodes.